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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/790,162

03/01/2004

Robert Hardacker

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7590

09/23/2005

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San Diego, CA 92101

EXAMINER

HO, DUC CHI

ART UNIT

PAPER NUMBER

2665

DATE MAILED: 09/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/790,162

Applicant(s)

HARDACKER ET AL.

Examiner

Duc C. Ho

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-7 is/are allowed.
- 6) ☒ Claim(s) 8-13 and 19-21 is/are rejected.
- 7) ☒ Claim(s) 14-18, 22 and 23 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>03-01-04</u> . | 6) <input type="checkbox"/> Other: _____ |

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102(e) that form the basis for the rejections under this section made in this Office action:

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 11-13, and 19-21 are rejected under 35 U.S.C. 102(e) as being anticipated by Loheit et al. (U.S. 2004/0196920), hereinafter referred to as Loheit.

Regarding claim 11, Loheit discloses wireless RF link for uncompressed transmission of HDTV signals.

at least one transmitter processor (an inherent transmitter processor of the transmitter 112b-fig. 1B) configured to receive a physical signaling stream representing digital video data and based thereon (the transmitter 112b configured to receive physical signaling stream 108b of high definition HDTV from a HDTV source 110b, see 0023-0028), without rendering baseband information representing the digital video data, outputting a quadrature signal suitable for processing by a wireless transmitter (the synchronized data streams 224-fig. 2 and 226-fig. 2, which contain the data of the original uncompressed HDTV signal 202-fig.2, may be used to provide efficient modulation of a carrier by the data of signal 202, for wireless transmission, see 0031).

Regarding claim 12, the inherent transmitter processor of the transmitter 112b-fig. 1B is capable of being implemented as an ASIC.

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Regarding claim 13, the inherent transmitter processor of the transmitter 112b-fig. 1B is capable of being implemented as an FPGA.

Regarding claim 19, Loheit discloses wireless RF link for uncompressed transmission of HDTV signals.

at least one receiver processor (an inherent receiver processor of the unit 128b-fig. 1B demodulates the I and Q data from the received modulated I and Q data via the antenna 114b-fig. 1B, see 0023-0028) *configured to receive a demodulated quadrature signal and based, without rendering baseband information representing the digital video data* (the demodulated I and Q data contain the data of the original uncompressed HDTV signal 202-fig. 2), *outputting a physical signaling stream representing digital video data* (the unit 128b-fig. 1B outputs a physical signaling stream representing digital video data 132b-fig. 1B to the unit 136b-fig. 1B).

Regarding claim 20, the inherent transmitter processor of the transmitter 112b-fig. 1B is capable of being implemented as an ASIC.

Regarding claim 21, the inherent transmitter processor of the transmitter 112b-fig. 1B is capable of being implemented as an FPGA.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains.

Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103© and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Loheit et al. (U.S. 2004/0196920), hereinafter referred to as Loheit, in view of Kim et al. (US 2002/0181608), hereinafter referred to as Kim.

Regarding claim 8, Loheit discloses wireless RF link for uncompressed transmission of HDTV signals.

The transmitter 112a-fig. 1A converts the uncompressed HDTV signals into the I and Q data from the source 110a-fig.1A , wherein the I and Q data, representing data which is not compression encoded, is efficient for modulation and transmission over a RF channel. The demo unit 128a and the antenna 114a receives the modulated I and Q data, convert the data into the uncompressed HDTV signals and outputting the signals to the HDTV 136a-fig.1A.

Loheit, however, does not expressly disclose physical signaling stream receiver and transmitter.

Kim discloses combining a clock signal and a data signal. Figure 1 shows a block diagram of the TDMS (transition-minimized differential signaling) system, which includes a transmitter 150, and a receiver 160, see 0087-0088.

One skill in the art would recognize the advantage of using a TMDS system, a mechanism allowing a combined clock signal and data signal, i.e. the high definition video data, to be transmitted over a clock channel for wireless transmission.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine Loheit with Kim.

The suggestion/motivation for doing so would have been to give a minimal penalty in the performance of the system at low frequencies in wirelessly transmitting combined uncompressed HDTV signal and clock signal over a clock channel.

Therefore, it would have been obvious to combine Loheit with Kim to obtain the invention as specified in claim 8.

Regarding claim 9, Kim discloses a 3-data and a-clock IMDS stream.

Regarding claim 10, Loheit discloses inphase I and quadrature Q data. The I and Q data contain the original uncompressed HDTV data, efficient for modulation by a RF transmitter.

Allowable Subject Matter

6. Claims 1-7 are allowed.
7. Claims 14-18, and 22-23 are objected to as being independent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

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8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Warner et al.(US 2003/0145258); Vance (US 5,243,415) are cited to show method and system for wireless digital multimedia transmission, which is considered pertinent to the claimed invention.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Duc Ho whose telephone number is (571) 272-3147. The examiner can normally be reached on Monday through Friday from 7:00 am to 3:30 pm.

If attempt to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu, can be reached on (571) 272-3155.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-2600.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

10. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patent Examiner

Duc Ho

09-21-05

A handwritten signature in black ink, appearing to read 'Duc Ho', with a stylized flourish extending to the right.